



INTEGRITY

BIOFUELS

Biodiesel End Uses
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Basic Terms

- **Biodiesel**- is the pure, or 100%, biodiesel fuel it is typically called B100 or neat biodiesel
- **A blend of biodiesel** and petroleum diesel is designated as a Bxx where the xx indicates the amount of biodiesel as a percentage.
- **Injection Blending**- Typically computerized equipment is used to pump biodiesel into a flowing line of petroleum diesel yielding a finished blend.
- **Splash Blending**- Adding biodiesel to a static tank of petroleum diesel.



End Uses of Biodiesel

- The majority of the biodiesel produced in the U.S. is blended with petroleum diesel and burnt in standard diesel engines, with a wide range of Bxx blends.
- There are some uses for biodiesel in the general chemistry area.



Bio-heat is a relatively new market in which biodiesel is excelling in displacing home heating oils!

Performance

Average Density and Heating Value of Biodiesel and Diesel Fuel			
Fuel	Density, g/cm ³	Net Heating Value Avg., Btu/gal	% Difference vs. No.2 Diesel Avg.
No. 2 Diesel	0.85	129,500	
Biodiesel (B100)	0.88	118,296	8.65
B20 Blend (B20)	0.856	127,259	1.73
B 2 Blend (B2)	0.851	129,276	0.17

http://www.biodiesel.org/pdf_files/fuelfactsheets/BTU_Content_Final_Oct2005.pdf

OEM Recommendations

• Many manufacturers of diesel powered equipment and diesel engines have done extensive testing of their products being used with biodiesel blends. Below is a very abbreviated list of big names that endorsed the use of biodiesel blends.

The full list can be found at <http://www.biodiesel.org/using-biodiesel/oem-information/oem-statement-summary-chart>

- BMW-B5
- Case IH- B5 to B100 in some models
- Cat- B5 to B20
- Chrysler- B5 to B20
- Cummins- B20
- Detroit Diesel- B5 to B20
- Ford- B20
- GM- B20
- John Deere- B20
- Kenworth-B5
- Volvo Trucks- B20

End Uses of Glycerin

Food- Glycerin and its derivatives can be used in many ways as a sweetener.

Feed- Glycerin can be used as a feed additive for cattle which adds nutritional value and decreases the dust generated.

Chemical- Many different applications from pharmaceutical to soap contain glycerin.



Questions/Comments

